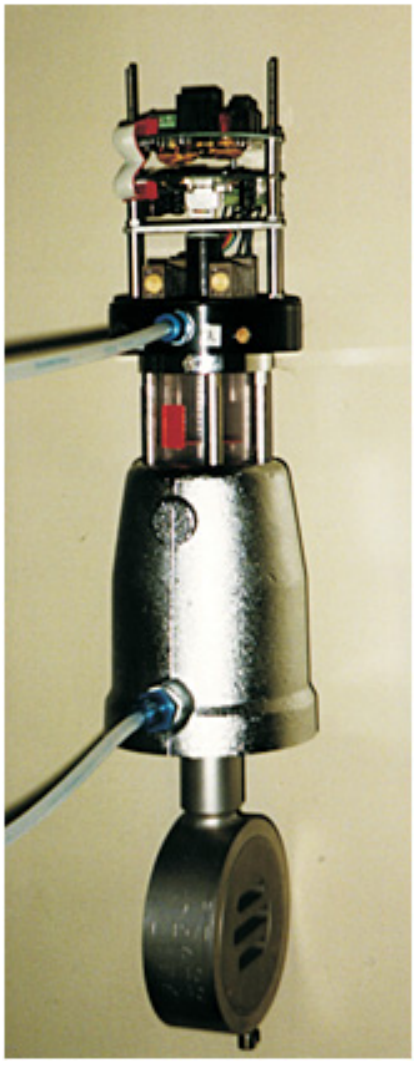
Pneumatic slide valve position

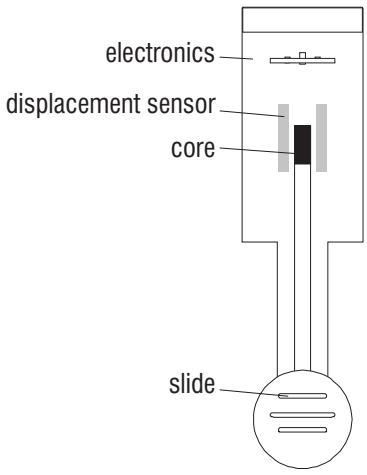
Pneumatic control valves are employed in chemical engineering for regulating liquid and gaseous media. In order to achieve a constantly high level of process reliability, the flow rate must be controlled exactly. A slide is driven pneumatically, changing the opening for the flow. An inductive displacement sensor, which measures the slide position, is joined to the slide.A microcontroller handles the control and evaluation of the displacement sensor along with the closed-loop control, parameterization and bus linkage of the control valve. Due to the already existing controller, the position measurement is realized for practically no cost, apart from a few passive components.

Reasons for choosing the system

- Contactless measurement in rough industrial environment (vibration)
- LVDT-Principle DTA-6D-20 with economic microcontroller operation (patent MICRO-EPSILON)
- Calibration of measuring ranges with microcontroller
- Well-priced and customer-specific sensor design

However, the decisive factor for this application is the non-contact measurement principle: In contrast to potentiometers, it operates completely wear-free and also gives an unlimited service life even under arduous conditions (e.g. vibrations on pipework). These advantages of the solution from Micro-Epsilon enable the customer to release a high quality, simple to operate, rugged product onto the market at competitive prices.





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